

1.0 INTRODUCTION

1.1 OWNERSHIP

Texas Mitigation Management, LLC., (Sponsor) proposes to develop a mitigation bank to be known as the Spellbottom Mitigation Bank (Bank) that would enhance and protect approximately 747 acres of bottomland habitat in Walker County, Texas (Figure 1).

1.2 TYPE OF BANK

The intent of the Bank is to provide mitigation opportunities for projects in both the public and private sectors within appropriate regions of eastern Texas.

1.3 PURPOSE OF THE MITIGATION BANK

The purpose of the Bank is to provide a source for off-site compensatory mitigation of unavoidable impacts to wetlands and other waters of the United States in the Bank's service area resulting from United States Army Corps of Engineers (USACE)-authorized activities under Section 404 of the *Clean Water Act (Federal Water Pollution Control Act)* and/or Section 10 of the *Rivers and Harbors Act (Rivers and Harbors Appropriation Act of 1899)*. The USACE and other federal agencies recognize the potential benefits of mitigation banking to the aquatic ecosystem, permit applicants, regulatory and natural resource agencies, and the general public. Mitigation banking is recognized as a means to streamline the Section 404 permit process, provide additional compensatory mitigation opportunities, consolidate and enhance the ecological benefits of otherwise independent smaller mitigation projects; and utilize expert financing, planning, and construction resources that are not often available for smaller mitigation projects.

1.4 MITIGATION BANK GOALS

- 1.4.1 Provide for the replacement of the chemical, physical, and biological functions and services of wetlands and other aquatic resources that are lost or degraded as a result of USACE-authorized activities;
- 1.4.2 Provide USACE permit applicants greater flexibility in compensating for unavoidable adverse impacts to the aquatic ecosystem after appropriate and practicable measures have been taken to avoid and minimize project-related impacts on site, and after practicable compensation has been conducted, or shown not to be in the best interest of the environment, especially when those impacts would be relatively minor; and
- 1.4.3 Provide more extensive, higher quality, and more cost-effective enhancement and protection of wetlands and other aquatic resources over that typically achieved by other forms of compensatory mitigation for USACE authorized activities that have adverse impacts on the aquatic environment.

1.5 BANK LOCATION

The Bank (approximately 747 acres) is part of a larger tract of land (approximately 999 acres) located within the intersection of FM 1791 and Walker Loop in Walker County, Texas. The project site is approximately eight miles southwest of the city of Huntsville, Texas. The approximate coordinates for the bank are Lat 30° 38' 10.44" N, Long 95° 40' 01.69" W. This landholding is within the floodplain of the West Fork of the San Jacinto River within the South Central Plains ecoregion (Griffith et al. 2004) (Figure 2).

1.6 SITE SELECTION

This site was evaluated carefully and strategically selected for a number of reasons including, but not limited to, watershed needs, long-term sustainability and site integrity (relating to population demographic and development trends in the Houston-Galveston Metropolitan area), aquatic habitat diversity, habitat connectivity, trends in land use, consolidation of mitigation projects, and compatibility with adjacent land uses; or, collectively, a watershed approach.

The proposed mitigation bank is located within close proximity to the Sam Houston National Forest Wildlife Management Area (WMA), a 323,016-acre land holding owned by the US Forest Service (USFS) and managed by Texas Parks and Wildlife Department (TPWD) (Figure 1). In the TPWD document, *Ecologically Significant River and Stream Segments - Region H*, the West Fork of the San Jacinto is considered an ecologically significant stream segment due to its high fish biodiversity and ground water recharge potential for the Chicot Aquifer. In addition, the Bank is located near a US Fish and Wildlife Service (USFWS) Priority Five area, *West Fork of the San Jacinto*, an 8,192-acre area. In general, the area in the vicinity of the project is in imminent threat of habitat loss due to homesite development (USFWS 1984). This fact is substantiated by the projected population growth and development trends described below.

Population growth trends and urban developments currently are increasing at an unprecedented rate. This threatens surrounding natural areas lying directly outside the suburban fringe of many Texas metropolitan areas including the Houston-Galveston Metropolitan Area. Using recommended long term projection scenarios set forth by the Texas State Data Center and Office of the State Demographer, the following conclusions concerning population growth can be drawn (Table 1).

- The population of the state of Texas will increase "to nearly 35.8 million by 2040, a percentage increase of 71.5 percent and a 14.9 million person increase from 2000 to 2040 (a numerical increase greater than the State's total population in 1980)."
- The Houston-Galveston region (containing the proposed service area) which had a population of 4.8 million in 2000 is projected to be nearly 5.7 million by 2010 and 8.6 million by 2040.
- Texas will have at least five metropolitan areas with more than one million people by 2040 and two with more than 8.0 million people. The Houston-Sugar Land-Baytown Metropolitan Area alone, with a population in 2000 roughly 4.7 million, is projected to increase to more than 8.4 million by 2040.

- Furthermore, Montgomery County is one of the nation's 100 fastest growing counties with a 4.4% population growth change from July 1, 2004 to July 1, 2005. (Christie 2006)

The Houston-Galveston Area Council 2025 Regional Growth Forecast projects that by 2025: 1) the metro area population will grow by 64%, 2) Montgomery county will be one of the fastest growing counties with a population increase of over 100%, and 3) Harris county will have the greatest absolute increase, growing by nearly 2 million people.

The rate of land development of rural areas also is projected to continue to increase. In Texas in 1982, 6.8 million acres, or 4 percent of the state's total surface area, was urban; by 1992 urban acreage had increased 1.4 million acres to 8.2 million acres, or 5% of total surface area. (www.texasep.org) From 1970 to 1990 the Dallas-Fort Worth Metropolitan area has urbanized 638.7 square miles of rural area due mainly to population increase. This yields a per capita land consumption rate of 0.259 ac./person in 1990. (Kolankiewicz and Beck 2001) If the rate is held constant and this trend is projected using data given in Table 1 for the Houston-Sugar Land-Baytown area, the amount of rural land lost between years 2000 and 2040 can be estimated to be approximately 1,492 square miles, almost 1 million acres.

Despite anthropogenic alteration and degradation of wetland habitats within the bank, this site exhibits excellent potential for wetland restoration. As the success of a wetland restoration project (mitigation bank) is proportional to the increase in the function of the restored area, selection of a site amenable to successful implementation of a restoration plan is critical. The fact that the Bank occurs in the West Fork of the San Jacinto River floodplain enhances the potential for restoration of high quality wetland features that are communicated over a large expanse of river frontage. Evidence of the flood prone nature of this site is depicted in Figure 3.

In addition, currently no approved mitigation banks are operating in the primary service area of the Bank, and limited mitigation opportunities exist in adjacent HUCs and Ecoregions (Table 2, Attachment A). Providing additional mitigation opportunities, landscape scale conservation, and flexibility for USACE-permit applicants within a rapidly growing area of the state is an important consideration in the development of this bank.

1.7 SERVICE AREA

The service area of a mitigation bank is the geographical area (e.g., watersheds or hydrologic unit codes (HUC), counties, ecoregions, etc.) within which those mitigation bank credits may be used, if approved, for compensatory mitigation for adverse impacts to the aquatic ecosystem anticipated by USACE-permit applicants.

The property containing the Bank is located in the South Central Plains Ecoregion within the San Jacinto HUC (120401) (Figure 2). The proposed Primary Service Area for the Bank includes like-kind and out-of-kind habitat types within the intersection of the San Jacinto River Basin (HUC:

120401) and the South Central Plains ecoregion wholly encompassed within the Galveston District. This includes portions of Walker, San Jacinto, Liberty, Harris, Montgomery, Grimes, Waller, and Harris counties (Figure 4).

The proposed Secondary Service Area includes like-kind and out-of-kind habitat types within those areas within the intersection of the Lower Trinity River Basin (HUC 120302) and the South Central Plains ecoregion, and the intersection of the San Jacinto River Basin (HUC: 120401) and the Texas Blackland Prairies, East Central Texas Plains, and Western Gulf Coastal Plain ecoregions, wholly encompassed within the Galveston District. This includes portions of Houston, Trinity, Walker, San Jacinto, Polk, Liberty, Montgomery, Grimes, Harris, Waller, and Fort Bend counties (Figure 4). Credit purchases in the Secondary Service Area will be performed at a multiplier of 1.5:1 times the established ratios for the Bank.

In exceptional cases, the USACE, would consider, and may approve, the use of the Bank for compensatory mitigation located outside the Primary and Secondary Service Areas but within the regulatory boundary of the USACE, Galveston District.

2.0 BANK ESTABLISHMENT

2.1 PROJECT HISTORY

Walker County encompasses 801 square miles of rolling hills and open prairies in the Piney Woods vegetative area. The county began its early development in the mid 1830's with a trading post in what is now the city of Huntsville. By 1860 farms had expanded to cover 180,000 acres of county land, including 38,000 acres of improved farmland. Land devoted to cotton in the county rose from 27,000 acres in 1900 to 31,000 acres in 1920, and to more than 43,000 acres by 1930. Farms and livestock were the mainstay of the region until the lumber industry of the 1870's began to gain momentum. The Sam Houston National Forest, which includes much of the southern half of the county, sustains the large, modern lumber industry. Currently, around 70% of the county is blanketed by forests of loblolly, short-leaf and long-leaf pine, and hardwoods.

Population growth quickly increased in the area due to the establishment of the railroad and subsequently a stimulation of agriculture and associated trade. An increasingly important factor in the growth of Walker County is the tremendous expansion of Houston. As this city continues to sprawl northward, more Walker County residents benefit from employment opportunities available in its metropolitan area.

The land is well watered, receiving forty-six inches of rain each year and is drained by two major rivers, the Trinity River in the north and the San Jacinto River in the south and their numerous associated creeks. (Leffler 2008)

2.2 BASELINE CONDITIONS

This prospectus initially addresses only the designated 747-acres of the Bank. Following a more detailed evaluation, additional acres may be added or removed. Currently, a formal wetland delineation as per the *1987 Corps Wetland Delineation Manual* has not been conducted on the project site. A recent feasibility study, resource review, and preliminary wetlands investigation generally supports the Sponsor's desire to pursue a wetland mitigation bank on the site. These investigations and on-site inspections take into consideration the components (i.e. soils, vegetation, and hydrology) that are important when attempting to develop a wetland mitigation bank with a high probability for success.

Soils

The majority of the soils within the bank are described by the USDA, Soil Survey of Walker County, Texas as Gladewater clay, frequently flooded. Soils listed as a hydric on the *USDA NRCS Hydric Soils List for Walker County, Texas* include Gladewater clay, Gowker and Kanebreak soils, Kanebreak soils, Kaufman-Gowker complex, and Trinity soils, all frequently flooded with 0-1% slope. (Figure 5) Historically, these soils are described as well-suited for hardwood species such as hackberry, water and willow oak, green ash and elm.

Vegetation

The majority of the site appears to be potentially jurisdictional wetlands used for bottomland pasture. This community consists predominantly of marsh elder (*Iva annua*), Dallisgrass (*Paspalum dilatatum*), American buckwheat vine (*Brunnichia ovata*), Texas frog fruit (*Phyla nodiflora*), soft rush (*Juncus effusus*), and various species of *Carex spp.* and *Cyperus spp.* Due to slight changes in microtopography throughout the site (gentle undulations and depressional features), vegetative communities are prone to vary, as manifested by occurrence of species adapted to either shorter or longer periods of inundation.

Additional areas found within, or in close proximity to, the riparian zones of the West Fork of the San Jacinto River and/or its tributaries, are dominated by woody overstory species. This is believed to be due to lack of vegetation manipulation by livestock or pasture management practices, such as grazing and mowing. Tree species commonly observed in these habitats include water elm (*Planera aquatica*), black willow (*Salix nigra*), delta post oak (*Quercus similis*), willow oak (*Quercus phellos*), water oak (*Quercus nigra*), cherrybark oak (*Quercus pagoda*), water hickory (*Carya aquatica*), green ash (*Fraxinus pennsylvanica*), and honey locust (*Gleditsia triacanthos*).

The vegetative communities within the riparian zones of the proposed mitigation bank generally resemble the community descriptions of the floodplains and low terraces of the South Central Plains Ecoregion, the WillowOak-Water Oak-Blackgum Forest, and Water Oak-Elm-Hackberry Forests (McMahan et al. 1984). The presence and abundance of these species indicates a high potential for successful establishment of these and other similarly adapted species throughout the Bank.

Hydrology

The majority of the Bank occurs within the floodplain of the West Fork of the San Jacinto River (Figure 6) and is subject to frequent flooding (USDA 1979). Subsequently, this acreage is also included in a Zone A FEMA high risk flood zone (Figure 7). As such, the Bank is located in flood-prone areas that are expected to fulfill high wetland performance standards. This has resulted in the formation of both hydric soil conditions and a preponderance of hydrophytic vegetation throughout most of the acreage proposed for the mitigation bank. Approximately 10,713 linear feet of the West Fork of the San Jacinto River is contained in its entirety within the proposed Bank and 10,409 linear feet of the river composes the southwestern most boundary of the proposed project area. There are 31,828 linear feet of unnamed streams contained within the boundary of the Bank.

Baseline Summary

The Bank may be categorized into distinct stands based on the hydrologic condition, existing vegetative conditions, area topography, soils, proposed management objectives, and administrative management considerations. The baseline condition of the existing vegetative cover type is best separated into two distinct units consisting of a bottomland pasture and a middle-aged hardwood habitat associated with riparian zones. A more detailed baseline functional assessment using the appropriate HGM interim model will be conducted upon approval to proceed with development of the

draft MBI. In general, the bottomland pasture is characterized as homogeneous due to current land management techniques (range and livestock management). Within the riparian zones, lack of these land management practices has resulted in variability in size, structure, and composition of forested communities.

A mitigation plan will be developed to facilitate the development of a mature high quality bottomland hardwood community in a desirable location and with a high probability for success. In general, mature bottomland hardwood forests contain an innate diversity of habitats resulting from patterns of natural disturbance that vary temporally and spatially as well as terrain or relief changes in land forms occurring in floodplains. This creates a mosaic of uneven-aged habitat patches within a mature forest complex, and further enhances habitat heterogeneity by creating multiple vertical layers within that forest system. The implementation of the mitigation plan will cease all current management practices and promote the reestablishment of this type of bottomland hardwood habitat.

2.3 CONCEPTUAL MITIGATION WORK PLAN

The premise of the project is to restore the Bank to a bottomland hardwood community exhibiting a high level of function. The most critical action will be to halt the current management cycle associated with pastureland development and cattle grazing. Adequate restoration will require multiple actions on various portions of the Bank with more specific examples below.

Reforestation/Forest Stand Improvement

Efforts to re-establish desirable hydrophytic overstory tree species typical of a bottomland hardwood forest will vary from complete reforestation of some areas to enhancement through Forest Stand Improvement (FSI) techniques in others. The majority of the site will require total reforestation and will be planted with bare-root, containerized seedlings, seeds, or a combination thereof. A minor component of the Bank (existing forested communities) will be enhanced via forest stand improvement (FSI) techniques and/or perpetual site protection and cessation of deleterious land management practices.

2.4 SITE PROTECTION

The Sponsor shall dedicate the Bank, in perpetuity, by an appropriate deed restriction, conservation easement, or combination of both. The Sponsor shall survey the Bank, develop the appropriate deed restriction for the surveyed area, submit the draft deed restriction to the USACE for review and approval, and record the USACE-approved deed restriction with the county clerk for each phase of development prior to withdrawal of credits from the Bank for that phase. The restriction shall not be removed from the deed or modified without written approval of the USACE. Conveyance of any interest in the property must be subject to the deed restriction. All deed restrictions shall be granted in perpetuity without encumbrances or other reservations, unless such encumbrances or reservations (e.g., retention of hunting, fishing, prescribed grazing, and hiking privileges) do not adversely affect the ecological viability of the bank. Conveyance of any interest in the property shall be subject to the deed restriction.

The Bank is vulnerable to acts of nature such as wildfires, climatic instability, and disease. Occurrence of such an act, following attainment of performance standards may require changes to the Bank, including revision of the Mitigation Work Plan (MWP) or the Mitigation Banking Instrument (MBI), to allow for maintenance activities to offset and counteract negative impacts. Depending upon the circumstances, allowing nature to take its course may be appropriate,, particularly when wetland vegetation is expected to eventually reestablish because of the continued existence of wetland hydrology and hydric soils and restrictions on incompatible land uses. Decisions on such issues shall be subject to approval by the USACE after coordination with the Interagency Review Team (IRT).

Long-term vegetation management practices such as mechanical vegetation control, selective herbicide treatments, prescribed burning, prescribed grazing, temporary plantings intended to suppress invasive or weed species or to stabilize exposed soil, selective tree removal, and water regime management can be valuable management tools and should remain available to the Sponsor. However, the Sponsor shall consider the effect of these practices on the long-term ecological objectives of the Bank prior to including them in any MWP or other management plan for the Bank is subject to approval of the USACE, after coordination with the IRT.

Other activities, such as timber harvesting, grazing, and planting wildlife food plots, may be conducted within the Bank provided the activity will enhance aquatic ecosystem functions such as wildlife habitat or water quality, not interfere with the long-term ecological objectives of the Bank, and is part of an IRT-approved MWP or management plan.

All structures and facilities within the Bank, including but not limited to, fences, roads, trails, water control structures, water diversion structures, and water conveyance structures, shall be properly maintained in perpetuity or for as long as each is needed to accomplish the goals of the Bank and achieve the requirements of the MBI. Protective fencing will be used, where applicable, to control trespassing and prevent incidental grazing from neighboring properties. Additional fencing may be required if subsequent monitoring determines that fencing has become damaged, ineffective, or necessary to protect the Bank.

Important mineral resources, including oil and gas, may exist under this Bank and subsurface rights to these mineral resources may be owned, in whole or in part, by others. Recognizing that surface rights owners in the state of Texas cannot control a mineral owner's access to those minerals, the Sponsor shall take all reasonable steps to develop a mineral management plan with the mineral owner(s) prior to the initiation of any mineral exploration or extraction activities. The mineral management plan shall include a listing of all surface or subsurface ownerships, a description of the anticipated impacts of the exploration and extraction activities on the local aquatic ecosystem functions and values, and a set of guidelines or best management practices that would minimize the adverse impact of those activities on the local aquatic ecosystem. The Sponsor should, whenever practicable, develop a lease, easement, or other suitable surface use agreement consistent with the mineral management plan for the recovery of subsurface minerals and associated activities.

The exploration for, and the production and transportation of, subsurface mineral resources beneath this bank, is acceptable provided that the resulting ground disturbing activities and surface alterations are minimized to the maximum extent practicable; activities are conducted in a manner that minimizes adverse environmental impacts; impacted areas are restored to pre-existing conditions as soon as practicable; reasonable and appropriate compensatory mitigation is achieved, and the entity conducting these activities complies with all applicable regulatory requirements, including those under Section 404 of the Clean Water Act. The number of credits in the Bank shall be reduced by the number of acres of area adversely impacted by the activities. If sufficient unused bank credits are not available, the USACE will require other appropriate off-site compensatory mitigation. The Bank Sponsor may propose appropriate compensatory action subject to approval by the USACE.

2.5 LAND USE ACTIVITIES

Upon the effective date of the approved MBI, the Sponsor will cease all land uses that are not consistent with the approved MBI and the MWP and enter an appropriate perpetual deed restriction on the lands within the Bank. The deed restriction will be recorded with the Walker County clerk. The Sponsor shall cease all land uses that are not consistent with the approved MBI and the MWP in perpetuity.

2.6 BANK OWNERSHIP / SPONSORSHIP

1. All real property to be included within the Bank is owned in fee simple by the Sponsor, and has been pledged for use in the bank consistent with the approved MBI. The Sponsor shall be responsible for developing, operating, and maintaining the Bank subject to the requirements of the approved MBI, but may convey ownership or sponsorship of the Bank to a successor as provided below. The inclusion of the Sponsor's property in the Bank and the granting of a deed restriction restricting future land uses for the benefit of the Bank shall not convey or establish any property interest on the part of any party to this instrument nor to any purchaser of bank credits. The approved MBI does not authorize, nor shall it be construed to permit, the establishment of any lien, encumbrance, or other claim with respect to the property, with the sole exception of the right on the part of USACE to require the Sponsor to implement components of the approved MBI, including recording any deed restriction, required as a condition of the issuance of a permit under Section 404 of the Clean Water Act for discharges of dredged and fill material into waters of the U.S. associated with construction, operation, and maintenance of the Bank.
2. The Sponsor may convey fee simple title to, or other forms of property interest in, any property included within the Bank, provided the necessary deed restrictions have been recorded for any property that is the subject of a previously withdrawn credit. In the event of a transfer in ownership, the Sponsor will make a reasonable effort to ensure that the property is conveyed to an environmentally responsible party.
3. The Sponsor may transfer sponsorship of the Bank to another public or private party, provided the new Sponsor agrees to abide by the terms of the approved MBI and compartment specific MWP or

a USACE-approved, modified MBI and/or compartment specific MWP. Notice of such transfer shall be submitted in writing to the USACE. Upon the transfer, all obligations for future performance of the original Sponsor shall be terminated. Unless a substitute financial assurance mechanism is established, all unused funds in the MTF, as well as the right to draw against the account, will be transferred to the third party Sponsor successor. The physical ownership of Bank lands and the operating rights (sponsorship) are separable components of the Bank and may be transferred independently.

3.0 OPERATION OF THE BANK

Plans call for the credit amount to be determined by assessments of the ecological functions of the habitat types. A wetland mitigation credit is characterized as a measure of functional capacity, represented by the gain of aquatic function, at a compensatory mitigation site. The measure of function is typically indexed to the number of acres of resources restored, established, enhanced, or protected as compensatory mitigation. In order to catalog the quality and quantity of credits that will be available in the proposed bank, surveys are planned to identify jurisdictional wetlands and respective wetland cover types using a baseline functional assessment. The results of these surveys serve as baselines for evaluations of ecological function of the respective land cover types / habitat types. Based on this quantitative evaluation, a portrayal of the relative quality of ecological functions is obtained. From these categories, ratios are determined to yield credits allocated to the Bank.

3.1 CREDIT / DEBIT PROCEDURES

3.1.2 Credit Determination

The USACE shall determine on a permit-by-permit basis the relative quality of the aquatic resources that would be adversely impacted unless another IRT member requests in writing to coordinate with the USACE on a particular case or all subsequent cases. In the absence of consensus among the USACE and coordinating IRT member(s) on the quality of an impacted area, an IRT-approved assessment methodology shall be used to determine the relative quality (low, medium, or high) of the impact site.

USACE-permit applicants may purchase mitigation credits from the Bank Sponsor to provide compensatory mitigation for authorized unavoidable adverse impacts to the aquatic environment if approved by the USACE. To receive approval to use the bank an USACE-permit applicant must, at a minimum, demonstrate to the USACE that:

- a. There is no practicable alternative to the discharge of dredged or filled material into a wetland or other waters of the United States, and
- b. All appropriate and practicable measures to minimize adverse impacts to the aquatic ecosystem have been included in the project, and
- c. All appropriate and practicable compensatory mitigation for unavoidable adverse impacts is included in the project.

To adequately replace aquatic functions that would be lost or degraded in the project area, in-kind compensation of aquatic resource impacts will generally be required. However, out-of-kind compensation may be acceptable if the USACE determines that it is appropriate, practicable, and environmentally preferable. In any case, the USACE shall have final authority to determine the acceptability of using bank credits as compensatory mitigation for adverse impacts associated

with USACE-authorized projects.

3.2 MONITORING, REPORTING AND REMEDIAL ACTIONS

The Sponsor shall monitor and report on the progress of the Bank toward achieving the goals and performance standards established by a detailed MWP and take all reasonable actions necessary to remediate any problem that prevents a component of the Bank from achieving Bank goals and performance standards. Procedures for monitoring, reporting, and taking remedial actions are described below.

3.2.1 Monitoring

The Sponsor shall monitor and report on the progress of the Bank toward achieving the goals and performance standards established by a detailed MWP and take all reasonable actions necessary to remediate any problem that prevents a component of the Bank from achieving Bank goals and performance standards. Procedures for monitoring, reporting, and taking remedial actions will be in compliance with *Regulatory Guidance Letter* (RGL) 06-3 (USACE 2006).

3.2.2 Reporting

The Sponsor shall provide each member of the IRT periodic reports documenting the condition of the Bank and its progress toward achieving the goals and performance standards of the Bank. A detailed monitoring and reporting schedule, as described in RGL 06-3, will be outlined in the MWP.

3.2.3 Remedial Actions

In the event that one or more components of the Bank do not achieve the performance standards or comply with any other requirements of the MBI, the following sequence of remedial actions shall be taken:

- a. Upon discovering that a component of the Bank does not comply with the requirements of the MWP, the Sponsor shall take all appropriate actions to bring that component into compliance as soon as practicable. During the period that a specific component of the bank is out of compliance, the USACE may suspend its approval of the use of that component's bank credits as compensatory mitigation for USACE-authorized projects.
- b. If remedial actions taken by the Sponsor under the provisions of the preceding paragraph do not bring the component of the Bank into compliance with the requirements of the MWP, despite reasonable efforts being made by the Sponsor, the Sponsor may elect to take the following actions (not simultaneously):

1. Submit to the USACE a proposal to modify the MWP and/or pertinent management plan. Any modification to the MWP or a management plan shall require the approval of the USACE, after coordination with the IRT, before the modification can be implemented.
 2. Provide written notice of Sponsor's intent to discontinue efforts to achieve the performance standards for that component of the Bank. Upon providing such notice, no credits may be established for that component, but the Sponsor shall be released from future maintenance and monitoring obligations for that component provided that releasing the Sponsor from those obligations does not adversely affect the remainder of the Bank. Any unused previously established credits for that component shall be removed from the Bank. Any used (purchased) previously established credits for that component shall be replaced with other unused established credits in the Bank. If there are insufficient unused credits to replace those removed credits, the Sponsor shall implement other appropriate compensatory mitigation approved by the USACE, after coordination with the IRT.
- c. If the failure of one or more components of the Bank to comply with the requirements of the MBI adversely affects the ability of the Bank to achieve its goals and objectives or the Sponsor does not make a reasonable effort to bring the Bank into compliance with the MWP, the USACE, after coordinating with the IRT and notifying the Sponsor, may terminate this MBI and operation of the Bank. The Sponsor shall implement all appropriate compensatory mitigation that the USACE, after coordination with the IRT, determines is necessary to compensate for those USACE-authorized impacts to the aquatic environment that have not been successfully compensated for by the Bank pursuant to the requirements of the MBI.

3.3 ACCOUNTING PROCEDURES

The Sponsor shall establish and maintain for inspection a ledger of all Bank transactions. The following information will be recorded in the ledger for each transaction:

- a. USACE-permit applicant's names, address, and telephone number
- b. USACE-permit and/or other identification number
- c. Location and brief description of the project for which the credits are being debited
- d. Brief description of the adverse project impacts (e.g., nature, size, and quality of aquatic resource affected)
- e. Date of transaction
- f. Number of credits available
- g. Number of credits withdrawn (debits)
- h. Current account balance

The Sponsor shall provide the USACE with a copy of each bank transaction within 30 days of the

transaction. The Sponsor shall provide an annual statement of the account to USACE by January 31 of each year until all credits have been withdrawn and the Bank is closed. The Sponsor shall maintain an official map of the Bank reflecting the status of all bank development and use.

3.4 BANK EXPANSION

1. The Sponsor may request that additional areas of land owned in fee simple or perpetually leased by the Sponsor be added to the Bank at a future date. The Sponsor shall submit a MWP to the USACE for each proposed expansion of the Bank. The MWP shall address and update location and baseline conditions, mitigation plan, performance standards, success criteria, credit/debit determinations, long-term management/monitoring/reporting, remedial actions, financial assurance and other components of the approved MBI as appropriate. The MWP must be approved by the USACE. The approved MBI may be modified, if appropriate, following the procedure in *Section 15.1*.
2. As additional property owned fee simple or perpetually leased by the Sponsor is added to the Bank, the Sponsor reserves the right, subject to USACE approval, to assume full responsibility for the development, operation, and maintenance of that additional property added to the Bank.

4.0 LITERATURE CITED

- Christie, Les. "100 fastest growing counties." CNNMoney. 16 Mar. 2006. CNN. 9 June 2008
<http://money.cnn.com/2006/03/15/real_estate/fastest_growing_US_counties/index.htm>. Path:
<http://money.cnn.com/>.
- Griffith, G.E., S.A. Bryce, J.M. Omernik, J.A. Comstock, A.C. Rogers, B. Harrison. 2004. Reston, Virginia,
U.S. Geological Survey (Map Scale 1:2,500,000).
- "Houston-Galveston Area Council 2025 Regional Growth Forecast." Houston-Galveston Area Council.
2003. 24 June 2008 <http://www.h-gac.com/community/forecasting/previously/documents/HGAC_2025_Regional_Growth_Forecast_May2003_ExecSumm.pdf>. Path: <http://www.h-gac.com/home/default.aspx>.
- Kolankiewicz, Leon, and Roy Beck. "Weighing Sprawl Factors in Large US Cities: A report on the nearly
equal roles played by population growth and land use choices in the loss of farmland and natural
habitat due to urbanization: Analysis of US Bureau of the Census Data on the 100 Largest
Urbanized Areas of the United States." 19 Mar. 2001. 19 June 2008
<<http://www.sprawlcity.org/studyUSA/USAsprawlz.pdf>>.
- Leffler, John. "Walker County." 11 Jan. 2008. Handbook of Texas Online. Texas State Historical
Association. 1 July 2008 <<http://www.tshaonline.org/handbook/online/articles/WW/hcw1.html>>.
Path: <http://www.tshaonline.org/>.
- McMahan, C.A., R.G. Frye, and K.L. Brown. 1984. The Vegetation Types of Texas Including Cropland.
Wildlife Division, Texas Parks and Wildlife Department.
- "Minimum Monitoring Requirements for Compensatory Mitigation Projects Involving the Creation,
Restoration, and/or Enhancement of Aquatic Resources." USACE. 3 Aug. 2006. USACE. 1 July
2008 <<http://www.usace.army.mil/cw/cecwo/reg/rgls/rgl06-03.pdf>>.
- Norris, Chad W., and Gordon W. Linam. "Ecologically Significant River and Stream Segments - Region H."
Texas Parks and Wildlife Department. Texas Parks and Wildlife Department. 24 June 2008
<http://www.tpwd.state.tx.us/publications/pwdpubs/pwd_rp_t3200_1059c/list_of_tables.phtml>.
Path: <http://www.tpwd.state.tx.us/publications/>.
- "SWG Approved Mitigation Banks (as of December 2007)." Chart. 26 June 2008
<<http://www.swg.usace.army.mil/reg/mitigation/bank/swg%20approved%20banks%20doc/SWG%20MITIGATION%20BANKS.doc>>. Path:
http://www.swg.usace.army.mil/reg/mitigation/bank/swg_mit_banks.asp.

Texas Environmental Profiles: Agriculture and Urban Sprawl. Texas Center for Policy Studies and Environmental Defense . 19 June 2008 <http://www.texasep.org/html/Ind/Ind_2agr_sprawl.html>.

USDA. 1979. Soil Survey of Walker County, Texas. United States Department of Agriculture, Natural Resources Conservation Service.

US. Fish & Wildlife Service. 1984. Texas Bottomland Hardwood Preservation Program Category 3; Department of the Interior Final Concept Plan. U.S. Fish and Wildlife Service Albuquerque, New Mexico, USA.